

N1-Methylpseudouridine-5'-triphosphate

Chemical Properties

CAS No. : 1428903-59-6

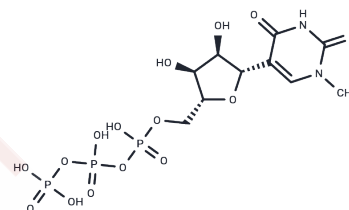
Formula: C₁₀H₁₇N₂O₁₅P₃

Molecular Weight: 498.17

Keep away from moisture

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	N1-Methylpseudouridine-5'-triphosphate is a modified nucleotide derivative commonly used to explore RNA modification, synthesis, and function, and can replace UTP in synthesis thereby improving RNA stability and reducing immunogenicity.
Targets(IC50)	Nucleoside Antimetabolite/Analog,DNA/RNA Synthesis
In vitro	In in vitro experiments, N1-Methylpseudouridine-5'-triphosphate significantly enhanced the translation initiation and elongation processes by inhibiting the phosphorylation of eIF2 α and increasing ribosome density. Additionally, mRNA incorporating N1-Methylpseudouridine-5'-triphosphate exhibited higher translation efficiency and lower immunogenicity in mammalian cell lines, such as HEK293T cells [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0073 mL	10.0367 mL	20.0735 mL
5 mM	0.4015 mL	2.0073 mL	4.0147 mL
10 mM	0.2007 mL	1.0037 mL	2.0073 mL
50 mM	0.0401 mL	0.2007 mL	0.4015 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Svitkin YV, et al. N1-methyl-pseudouridine in mRNA enhances translation through eIF2 α -dependent and independent mechanisms by increasing ribosome density. *Nucleic Acids Res.* 2017 Jun 2;45(10):6023-6036.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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